



# Maine, Massachusetts, and Vermont Planning Organization Transportation Plan Literature Review

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## Part 1: Introduction

As part of a U.S. Department of Energy (U.S. DOE) grant, Clean Cities coalitions in Maine, Massachusetts, Vermont, New Hampshire, and Rhode Island are executing a series of projects aimed at “Removing Barriers, Implementing Policies and Advancing Alternative Fuels Markets in New England.” Activities under the grant include trainings, workshops, and working groups for fleets, first responders, vehicle inspectors, mechanics, and fuel producers, as well as efforts to synchronize regulations, permitting, and safety standards in the region.

Understanding the importance of involving regional planning organizations in accomplishing Clean Cities goals, the Maine, Massachusetts, and Vermont coalitions also committed to working with these organizations as part of the DOE grant. Specifically, this project is aimed at educating planning organizations about the opportunities related to alternative fuel vehicles and infrastructure and how they may incorporate these opportunities into their future plans and projects. The coalitions proposed a literature review as the first step to understanding whether these organizations already consider alternative fuel vehicles and infrastructure a priority. Specifically, this literature review will look at transportation planning documentation available from organizations in Maine, Massachusetts, and Vermont, including a search for information related to Clean Cities portfolio items and identification of potential missed opportunities.

## Part 2: Structure and Responsibilities of Planning Organizations

Metropolitan planning organizations (MPOs) are transportation policy organizations comprised of representatives from local, regional, state, and federal government agencies. Any urbanized area with a population over 50,000 people is considered a metropolitan planning area and must have a designated MPO, according to federal legislation. Currently, there are 384 MPOs designated by the U.S. Department of Transportation (U.S. DOT).<sup>1,2</sup>

Maine houses four MPOs, Massachusetts has ten, and Vermont includes one (15 total; see Appendix A). These MPOs’ jurisdictions range from 36 square miles (sq mi) and a population of 20,761 (Kittery Area Comprehensive Transportation Study, or KACTS)<sup>3</sup> to 1,458 sq mi and a population of 3,159,512 (Boston Region MPO). The structure of each MPO varies. For example, all Massachusetts MPOs include the following common members:

- Massachusetts Department of Transportation (MassDOT) Secretary and Chief Executive Officer;
- MassDOT Highway Division Administrator;
- A representative from the regional planning agency;
- A representative from the regional transit agency;
- U.S. DOT Federal Highway Administration (FHWA) – non-voting member;
- U.S. DOT Federal Transit Administration (FTA) – non-voting member; and
- Elected officials from local municipalities.<sup>4</sup>

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<sup>1</sup> FHWA/FTA, Metropolitan Transportation Planning, [http://www.planning.dot.gov/focus\\_metropolitan.asp](http://www.planning.dot.gov/focus_metropolitan.asp). Accessed February 4, 2014.

<sup>2</sup> FHWA/FTA, MPO Database, <http://www.planning.dot.gov/mpo.asp>. Accessed February 4, 2014.

<sup>3</sup> KACTS covers an urbanized area that includes both Maine and New Hampshire. The MPO population cited here is limited to the Maine portion of the metropolitan planning area.

<sup>4</sup> MassDOT, *Massachusetts Draft STIP for Federal Fiscal Years 2014-2017*, <http://www.massdot.state.ma.us/planning/Main/StatewidePlans/StateTransportationImprovementProgram/Introduction.aspx>. Accessed February 4, 2014.

Similarly, the Maine Department of Transportation (MaineDOT) representatives serve on various MPO committees to “present the state’s perspective in the consensus building that identifies the transportation needs, priorities and solutions in each MPO region.”<sup>5</sup> A representative from the Vermont Agency of Transportation (VTrans) sits on the Vermont MPO Board of Directors.<sup>6</sup>

According to U.S. DOT, the primary role of MPOs is to ensure that transportation projects within their jurisdiction conform to the “continuing, cooperative, and comprehensive” transportation planning process.<sup>7</sup> MPOs are also responsible for programming federal transportation funds. Federal funding from U.S. DOT for initiatives such as the [Congestion Mitigation and Air Quality Improvement](#) (CMAQ) and Surface Transportation Funding (STF) programs is funneled through state agencies and MPOs.<sup>8</sup> In recent years, the interest in U.S. DOT funds for alternative fuel and advanced vehicle projects has increased, specifically as an opportunity for Clean Cities coalitions and their stakeholders. In fact, the 2012 surface transportation act, Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21), added electric vehicle (EV) and natural gas vehicle (NGV) infrastructure to the list of projects eligible for the STF program funding (Section 1108) and included a special note stating that CMAQ funding may be used to establish electric vehicle supply equipment (EVSE) and NGV fueling stations (Section 1113). It should be noted, however, that this funding may not be available in areas that are considered in attainment for ozone, carbon monoxide, and particulate matter by the U.S. Environmental Protection Agency (EPA). Currently, there are not any counties in Maine or Vermont included on EPA’s list of nonattainment areas for criteria pollutants.<sup>9</sup> That said, these states still receive a minimum allocation of funding from U.S. DOT for air quality improvement programs.<sup>10</sup>

## 2.1 MPO Planning Documents

Each MPO must prepare and maintain a series of plans that outline the transportation goals for their jurisdiction. These plans incorporate input from the state and regional transportation agencies and the public, and dictate where the MPO allocates resources:

- **Unified Planning Work Program (UPWP):** Includes the transportation studies and other planning tasks the MPO will perform, including funding sources, as well as the documents and products that will result, schedules, and responsibilities. The UPWP addresses one to two years into the future and is updated annually.
- **Metropolitan Transportation Plan (MTP) or Long-Range Transportation Plan (LRTP):** Focuses on goals, priorities, strategies, and projects over a 20-year horizon. Updated every four to five years, the MTP or LRTP must be consistent with the long-range statewide transportation plan (LRSTP, see Section 5 below) and include cost estimates and available financial resources. According to U.S. DOT, “Depending on how successfully it reflects these policies, needs, and priorities, the MTP can become an

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<sup>5</sup> MaineDOT, *Administrative Guide to MPOs*, <http://www.maine.gov/mdot/ppp/documents/pdf/mpoguide.pdf>. January 2012.

<sup>6</sup> Chittenden County Regional Planning Commission, Transportation Planning FAQs, <http://www.ccrpcvt.org/transportation/t-faq/>. Accessed February 5, 2014.

<sup>7</sup> U.S. DOT, Transportation Planning Process: Key Issues: A Briefing Book for Transportation Decisionmakers, Officials, and Staff, <http://www.planning.dot.gov/documents/briefingbook/bbook.htm>. Accessed February 4, 2014.

<sup>8</sup> *ibid*

<sup>9</sup> EPA, Currently Designated Nonattainment Areas for All Criteria Pollutants, <http://www.epa.gov/oagps001/greenbk/anc1.html>. Accessed March 6, 2014.

<sup>10</sup> U.S. DOT, CMAQ Program, [http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/](http://www.fhwa.dot.gov/environment/air_quality/cmaq/). Accessed March 6, 2014.

important guide for transportation investments, strategies, and other decisions throughout the region.”<sup>11</sup>

- **Transportation Improvement Program (TIP):** Includes specific projects from the MTP or LRTP that have been funded and that the MPO will pursue in the next four years. The TIP is updated at least every four years, approved by the governor, and incorporated into the Statewide Transportation Improvement Program (STIP, see Section 5 below). Where the MTP or LRTP is a “wish list,” the TIP is designed to be an active “to do list” based on available funding.<sup>12</sup>

A review of these documents assists in determining what type of projects have been funded through MPOs, or will be considered in the future. While the MPO may not take the lead on implementing projects identified in their plans, they often provide assistance in securing funding. Because the UPWP is effectively a business plan for the MPO, for the purposes of this literature review, only MTPs/LRTPs and TIPs were reviewed.

## 2.2 Project Selection and Federal Funding

The selection process for federal funding varies from state-to-state. In Massachusetts, for example, funding decisions are made on an annual basis. In the case of FHWA funding, a portion of federal dollars are allocated to state-level initiatives. The remaining funding is funneled to the MPOs for their TIPs based on a formula that takes into account the MPO’s road mileage and population.<sup>13</sup> The process in Vermont is similar; in Maine, allocations are made every two years.

Most federal funding requires matching funds at the state and local level, typically 20%. In most states, the match for TIP projects draws from the state transportation fund, which is supported by revenue from the motor fuel tax and/or vehicle registration fees.<sup>14</sup>

## 2.3 MPO Structure

In New England and across the country, MPOs can be free-standing or housed in a regional planning organization (sometimes called a regional planning commission, or RPC, or regional planning agency, or RPA), council of governments (COG), or city or county government organization. For example, in Massachusetts, MassDOT hires RPAs to staff MPOs and conduct transportation planning activities. One exception is the Boston Region MPO, which is staffed by an independent group, Central Transportation Planning Staff, though the local RPA also assists with some MPO activities.<sup>15</sup> In Vermont, Chittenden County MPO is the sole MPO in the state, but is supplemented by 10 additional RPC organizations. According to the *Vermont Long Range Transportation Business Plan (Plan)*, “Cooperative relationships between VTrans, RPC Transportation Advisory Committees (TAC) and the Chittenden County MPO enhance the

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<sup>11</sup> FHWA, *Best Planning Practices: Metropolitan Transportation Plans*, [http://www.planning.dot.gov/documents/BestPlanningPractices\\_MTP.pdf](http://www.planning.dot.gov/documents/BestPlanningPractices_MTP.pdf). March 2012.

<sup>12</sup> U.S. DOT, *Transportation Planning Process: Key Issues: A Briefing Book for Transportation Decisionmakers, Officials, and Staff*.

<sup>13</sup> MassDOT, *Massachusetts Draft STIP for Federal Fiscal Years 2014-2017*.

<sup>14</sup> Chittenden County RPC, *TIP for Fiscal Years 2014*, [http://www.ccrpcvt.org/TIP\\_docs/FY14-17TIPAsAdopted.pdf](http://www.ccrpcvt.org/TIP_docs/FY14-17TIPAsAdopted.pdf). July 2013.

<sup>15</sup> MassDOT, *Massachusetts Draft STIP for Federal Fiscal Years 2014-2017*.

opportunity to implement the Plan goals, policies, strategies and key initiatives in regional decision-making for all modes.”<sup>16</sup>

Because of the significant overlap in goals, priorities, and organization between MPOs and other planning organizations in New England, this literature review also includes RPCs and COGs identified through the National Association of Regional Councils’ Listing of COGs and MPOs.<sup>17</sup> There are an additional 20 RPCs and COGs not already considered an MPO in Maine, Massachusetts, and Vermont, bringing the total organizations included in this literature review to 35.<sup>18</sup> For the remainder of this document, MPOs, RPCs, and COGs are referred to collectively as “planning organizations.”

## 2.4 Current Transportation Planning Priorities and Challenges

State and regional transportation agencies currently face a number of challenges. Funding at the planning organization level is prioritized for projects that address these needs and challenges. It is important to understand how alternative fuels and advanced vehicles fit into these priorities:

- Inflation of construction costs, specifically asphalt and fuel costs;
- Dwindling fuel tax revenues, partially due to increased fuel economy requirements, use of advanced technology vehicles (hybrid electric vehicles, or HEVs), and use of alternative fuels (see Section 6 below);<sup>19</sup>
- State highway fund limitations, due to increased costs and reduced revenues;
- Reduced federal flexibility and funding;
- Aging highway infrastructure and vehicle fleets;
- Changing demographics, including an older and more diverse population creating additional demand for alternative transportation options;
- An increased focus on stewardship, including environmental impacts and climate change;
- Energy constraints;
- Changing land use patterns;
- Increased security needs, requiring coordination with homeland security agencies at the federal and state level; and
- Increased demand on state transportation systems for freight movement.<sup>20, 21, 22</sup>

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<sup>16</sup> VTrans, *Vermont Long Range Transportation Business Plan*, <http://www.rsginc.com/sites/default/files/publications/66.%20VT%20Long%20Range%20Transportation%20Business%20Plan.pdf>. March 2009.

<sup>17</sup> National Association of Regional Councils, Listing of COGs and MPOs, <http://narc.org/resource-center/cogs-mpos/listing-of-cogs-and-mpos/>. Accessed December 18, 2013.

<sup>18</sup> According to Maine Clean Communities, Penobscot Valley Council of Governments was absorbed by Eastern Maine Development Corporation and is no longer a free-standing organization.

<sup>19</sup> Unfortunately, this situation creates a “catch-22” for transportation agencies wishing to promote these technologies and fuels.

<sup>20</sup> MaineDOT, *Connecting Maine: Maine’s Long Range Transportation Plan*, <http://www.maine.gov/mdot/connectingmaine/plan.htm>. July 2010.

<sup>21</sup> MassDOT, *weMove Massachusetts: Planning for Performance*, [http://www.massdot.state.ma.us/Portals/22/Docs/WWM\\_Planning\\_for\\_Performance.pdf](http://www.massdot.state.ma.us/Portals/22/Docs/WWM_Planning_for_Performance.pdf). December 2013.

<sup>22</sup> VTrans, *Vermont Long Range Transportation Business Plan*.



## Part 3: Methodology

To begin the literature review process, ICF International (ICF) conducted an Internet search for any documentation or plans related to programmatic efforts of the Maine, Massachusetts, and Vermont planning organizations. This may include an MPO's most current TIP documentation, MTP or LRTP, and other short- or long-term strategies or plans. Note that corridor-specific plans and documents that are solely budget-focused were not included in this analysis. ICF also reviewed state-level plans and similar documents in the three states.

If current (2010 or more recent) plans were not accessible via the Internet, ICF worked with each of the Clean Cities coalition coordinators to reach out the planning organizations via email to locate the documents. ICF and Clean Cities coordinators conducted one round of follow-up emails or phone calls to unresponsive organizations. In total, this outreach included 14 MPOs and RPCs. Of those, 12 responded with updated plans, links, or information. A summary of this outreach is included in Appendix A. An example outreach email is included in Appendix B. As a result of research and outreach, ICF compiled 47 relevant plans for review.

ICF reviewed each document, specifically for a set of keywords related to alternative fuel vehicles and infrastructure (see box). Based on this research, ICF developed an Excel spreadsheet database (Appendix C) with the following information on each relevant planning organization document: authoring organization, state, plan title, Web link, date of publication, information about the next update, a synopsis of information related to alternative fuels and advanced vehicles, and keywords identified. If there was no mention of these items within a planning document, it is noted in Appendix C.

A summary of the information collected is provided in the following sections.

### Keywords

- alternative fuels
- alternative fuel vehicles
- idle reduction
- biodiesel
- biofuel
- biogas
- Clean Cities/Clean Communities
- clean vehicles
- compressed natural gas
- electric/plug-in electric vehicles
- electric vehicle supply equipment/charging stations
- ethanol/E85
- flexible fuel vehicles
- fuel cells
- fuel economy
- fuel-efficient vehicle
- high occupancy vehicle exemptions
- hybrid electric vehicles
- hydrogen
- liquefied natural gas
- low carbon fuels
- low emission vehicles
- methanol
- natural gas vehicles
- propane/liquefied petroleum gas/autogas
- refueling infrastructure/fueling infrastructure
- renewable fuels
- truck stop electrification
- vehicle conversions/aftermarket conversions
- zero emission vehicles

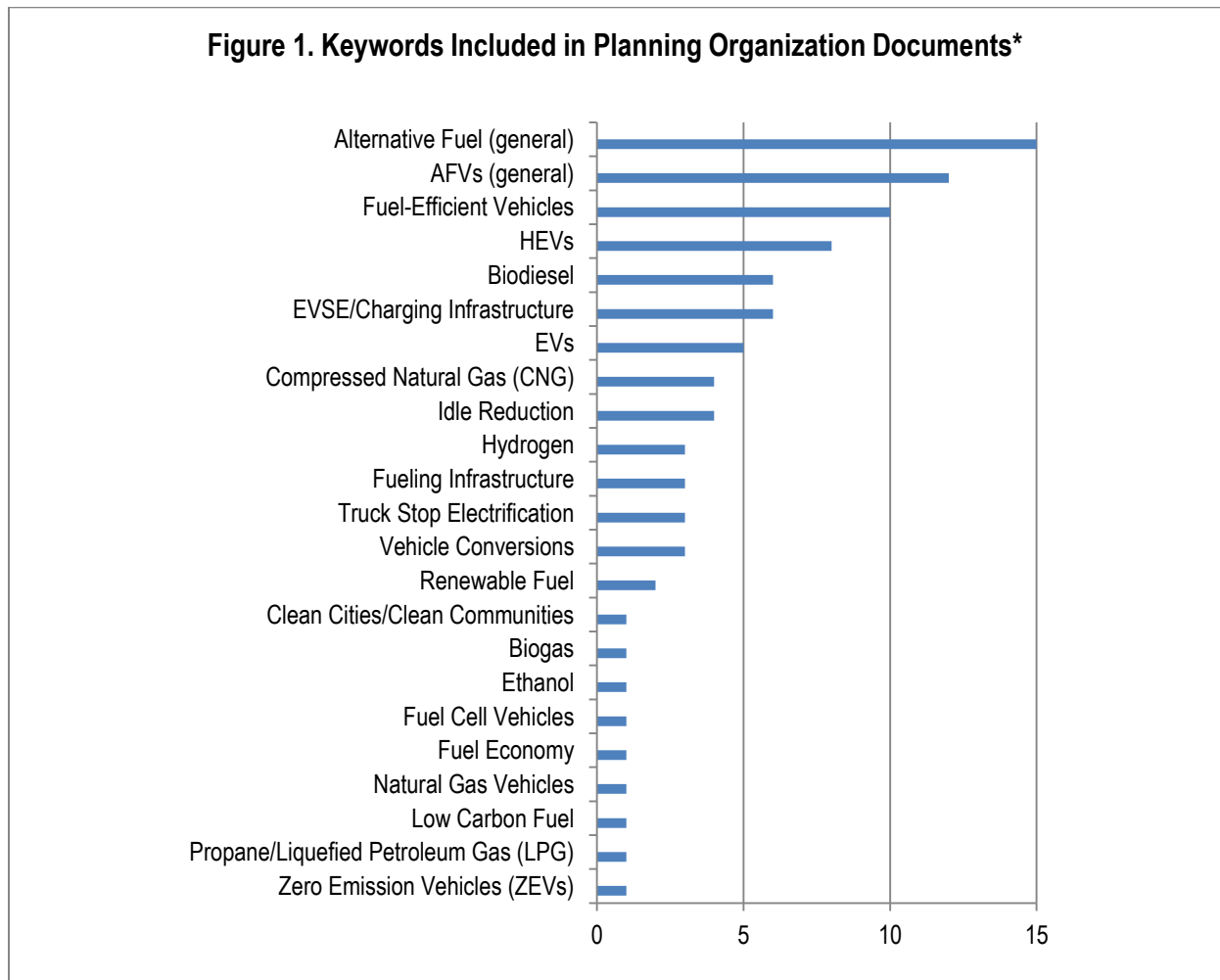
## Part 4: Planning Organizations and Alternative Fuels

### 4.1 Alternative Fuel and Infrastructure Priorities in Planning Documents

Of the 35 total Maine, Massachusetts, and Vermont planning organizations, 25 were identified as having at least mentioned the use of alternative fuels, alternative fuel vehicles (AFVs), or other fuel efficiency measures in their planning documents. From these 25 MPOs, a total of 30 planning documents contain a mention of alternative fuels or other fuel efficiency topics. Only one plan included mention of Clean Cities, specifically.

It is also notable that while U.S. DOT-designated MPOs have recent plans available, many of the RPCs have not updated their planning documentation in several years. This was particularly the case in Vermont. However, outreach to these organizations indicates that at least five organizations will be releasing updated plans in the next year.

Following a thorough review of each plan, there are several notable trends and recurring themes. While it is important to note that many plans only briefly mention alternative fuels without elaborating on how they intend to implement them, general references to alternative fuels and AFVs are mentioned in some capacity in over half of the plans. Popular topics include fuel-efficient vehicles, HEVs, biodiesel, EVSE or charging infrastructure, and EVs. See Figure 1 and Appendix C for additional details.



\* Because a plan may include more than one keyword, adding the totals results in counting some plans more than once.

Several planning organization documents are considered notable due to the extensive information and project plans related to alternative fuels and other keywords. These include Martha's Vineyard Commission's (MA) [Regional Transportation Plan](#), Pioneer Valley MPO's (MA) [Regional Transportation Plan](#), Greater Portland Council of Governments and Southern Maine Planning and Development Commission's (ME) *Sustain Southern Maine Long Range*

*Transportation Plan*<sup>23</sup>, Chittenden County MPO's (VT) [2013 Chittenden County ECOS Plan](#), Northern Middlesex MPO's (MA) [Regional Transportation Plan](#), and Merrimack Valley MPO's (MA) [Regional Transportation Plan](#). More details about these plans follow.

In Martha's Vineyard Commission's *Regional Transportation Plan*, one proposed policy is to encourage or require the use of AFVs by rental car agencies. In addition, the use of energy-efficient vehicles is mentioned as one of the strategies that should be included in the broader island-wide planning effort, the Island Plan, to address climate change, stating that, "choosing fuel-efficient vehicles could significantly reduce the amount of petroleum-based fuels we consume and the related damages to the air quality and public health[...] [H]ybrids and other efficient vehicles – such as soon to be available plug-in hybrids and all-electric vehicles – offer the easiest solutions to reducing our fossil fuels used in transportation."<sup>24</sup>

In Pioneer Valley MPO's *Regional Transportation Plan*, one of the sustainability needs identified is incorporating renewable energy sources by using AFVs to reduce the demand on fossil fuels. Strategies listed to meet this need include advancing and promoting the use of AFVs by adding EVSE and providing incentives for HEVs, as well as promoting the use of energy-efficient travel modes. Yet another strategy is implementing the *Regional Clean Energy Plan*, which includes transportation energy sources such as solar electricity, biomass, and biofuels.<sup>25</sup>

The Greater Portland Council of Governments and Southern Maine Planning and Development Commission's (ME) *Sustain Southern Maine Long Range Transportation Plan* includes a policy to "protect the environment by reducing the negative impacts the transportation has on the natural environment and human health." Strategies provided to address this policy are: reducing greenhouse gas (GHG) emissions and air pollution by continuing to support the work of the Maine Clean Communities; converting waste hauler fleets to compressed natural gas (CNG) or blended biodiesel; converting other fleets to propane autogas; establishing an EVSE network; and reducing fuel consumption through education and a cap and trade type system for transportation. Notable performance measures to assess success include sales figures for HEVs and EVs, as well as the number of alternative fueling stations and usage figures for these stations.<sup>26</sup>

Chittenden County MPO's *2013 Chittenden County ECOS Plan* combines the county's Regional Plan, MTP, and the *Comprehensive Economic Development Strategy* into one document. One of the key issues addressed is the more widespread adoption of EVs to reduce the total energy consumption in the county. As such, one of their future project investments will be to develop a regional network of EVSE to accommodate the growth of EVs. Another potential project investment is adopting NGVs for heavy-duty fleets.<sup>27</sup>

Northern Middlesex MPO's *Regional Transportation Plan* aims to minimize the use of energy resources by promoting AFVs and to reduce GHG emissions by encouraging the use of zero

<sup>23</sup> This plan was accessed in February 2014, but is no longer available on the Sustain Southern Maine website, which now says that the transportation plan is coming soon.

<sup>24</sup> Martha's Vineyard Commission, *Regional Transportation Plan*, <http://www.mvcommission.org/doc.php/2011%20RTP%20-%20FINAL.pdf?id=3765>. 2011.

<sup>25</sup> Pioneer Valley MPO, *Regional Transportation Plan*, [http://www.pvpc.org/resources/transport/2011-rtp/2012%20Final%20RTP\\_9\\_21\\_11\\_web.pdf](http://www.pvpc.org/resources/transport/2011-rtp/2012%20Final%20RTP_9_21_11_web.pdf). September 2011.

<sup>26</sup> Greater Portland Council of Governments and Southern Maine Planning and Development Commission, *Sustain Southern Maine Long Range Transportation Plan*. October 2013.

<sup>27</sup> Chittenden County MPO, *2013 Chittenden County ECOS Plan*, [http://ecosproject.com/sites/default/files/ECOS\\_Plan\\_FINALmerged\\_20130619.pdf](http://ecosproject.com/sites/default/files/ECOS_Plan_FINALmerged_20130619.pdf). June 2013.

emission vehicles (ZEVs) and AFVs. In addition, the plan mentions that the Lowell Regional Transit Authority bus fleet currently operates six CNG and four hybrid vehicles.<sup>28</sup>

One of Merrimack Valley MPO's objectives in their *Regional Transportation Plan* is to participate in the Massachusetts Department of Energy Resources' Green Communities program. A requirement for being a Green Community is to purchase only fuel-efficient vehicles for municipal use. In addition, the MPO aims to help develop local and regional energy plans that consider the need for future electric, CNG, and hydrogen vehicles.<sup>29</sup>

## 4.2 Alternative Fuel Vehicle and Infrastructure Projects in Budget Documents

While 25 planning organizations have some mention of alternative fuels or advanced vehicles in their planning documents, ICF also wanted to determine how many have taken action and made concrete plans to implement these goals. To do so, ICF examined 10 available transportation budget documents (often found within the MPO TIP) for planning organizations that had mentioned alternative fuel vehicles and infrastructure in their plans. Out of these 10, only three organizations actually included alternative fuel projects in their current or future budgets (see Figure 2).

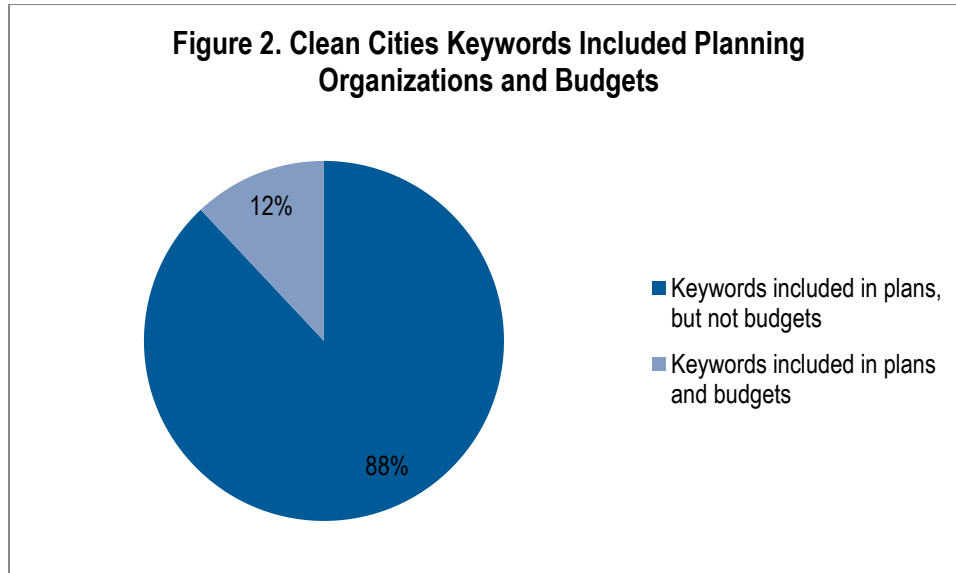


Table 1 provides an analysis of the 10 budget documents ICF reviewed, as well as information on what was included in the respective organization planning documents.

<sup>28</sup> Northern Middlesex MPO, *Regional Transportation Plan*, <http://www.nmcog.org/2012-2035%20RTP%20Update/Northern%20Middlesex%20Regional%20Transportation%20Plan%202012-2035.pdf>. 2012.

<sup>29</sup> Merrimack Valley MPO, *Regional Transportation Plan*, <http://mvpc.org/wp-content/uploads/2012-final-RTP-ch-6-Environmental-Sustainability.pdf>. 2012.

Table 1. Planning and Budget Document Comparison	Planning Document Summary	Budget Summary
<b>Merrimack Valley MPO (MA)</b>	Alternative fuels, including CNG, hydrogen, and fuel-efficient vehicles, are encouraged in the <i>Regional Transportation Plan</i> . <sup>30</sup>	Funding is provided for upgrades to clean fuel buses in 2015. <sup>31</sup>
<b>Berkshire MPO (MA)</b>	Fuel-efficient vehicles and vehicle replacements are mentioned in the <i>Regional Transportation Plan</i> . <sup>32</sup>	Maintenance and garage improvements for AFVs and vehicle replacements are included. <sup>33</sup>
<b>Montachusett MPO (MA)</b>	Replacing existing conventional buses and vans with hybrid and alternative fuel buses is specifically mentioned in the <i>Regional Transportation Plan</i> . <sup>34</sup>	Two hybrid electric replacement buses are in the budget for 2014. <sup>35</sup>
<b>Chittenden County MPO (VT)</b>	EVs, NGVs, and EVSE are mentioned in the plan but no specific projects are stated. <sup>36</sup>	There is funding allocated for two new buses but alternative fuels are not specified. <sup>37</sup>
<b>Boston Region MPO (MA)</b>	The planning documents state that one of the policy goals is alternative fuel and idle reduction deployment, including CNG buses and refueling equipment. <sup>38, 39</sup>	No mention of alternative fuels. <sup>40</sup>
<b>Bangor Area Comprehensive Transportation System (BACTS, ME)</b>	Alternative fuels are briefly mentioned in the LRTP as a way to reduce GHG emissions. <sup>41</sup>	No mention of alternative fuels. <sup>42</sup>
<b>Central Massachusetts MPO (MA)</b>	Diesel-hybrid buses and AFVs are briefly mentioned in the <i>Regional Transportation Plan</i> . <sup>43</sup>	No mention of alternative fuels. <sup>44</sup>

<sup>30</sup> ibid

<sup>31</sup> Merrimack Valley MPO, Final FY 2014-2017 TIP, <http://mvpc.org/wp-content/uploads/Final-June-2013-FINAL-2014-2017-TIP-No-Signatures-with-Map-Links.pdf>. June 2013.

<sup>32</sup> Berkshire MPO, 2012 *Regional Transportation Plan*, [http://berkshireplanning.org/images/uploads/documents/Regional\\_Transportation\\_Plan\\_2011.pdf](http://berkshireplanning.org/images/uploads/documents/Regional_Transportation_Plan_2011.pdf). August 2011.

<sup>33</sup> Berkshire MPO, TIP: 2013-2017, [http://berkshireplanning.org/images/uploads/documents/FY\\_14-17\\_TIP\\_Document\\_Reduced.pdf](http://berkshireplanning.org/images/uploads/documents/FY_14-17_TIP_Document_Reduced.pdf). June 2013.

<sup>34</sup> Montachusett MPO, 2012 *Montachusett Regional Transportation Plan*, <http://www.mrpc.org/transportation/pages/regional-transportation-plan>. August 2011.

<sup>35</sup> Montachusett MPO, MPO Endorsed FFY 2014-2017 TIP, [http://www.mrpc.org/sites/montachusetttrpc/files/file/file/mpo\\_endorsed\\_ffy\\_2014\\_2017\\_tip\\_6\\_12\\_2013\\_0.pdf](http://www.mrpc.org/sites/montachusetttrpc/files/file/file/mpo_endorsed_ffy_2014_2017_tip_6_12_2013_0.pdf). June 2013.

<sup>36</sup> Chittenden County MPO, 2013 *Chittenden County ECOS Plan*.

<sup>37</sup> Chittenden County MPO, TIP for Fiscal Years 2014-2017, [http://www.ccrpcvt.org/TIP\\_docs/FY14-17TIPAsAdopted.pdf](http://www.ccrpcvt.org/TIP_docs/FY14-17TIPAsAdopted.pdf). July 2013.

<sup>38</sup> Boston Region MPO, *Long-Range Transportation Plan - Paths to a Sustainable Region*, [http://www.ctps.org/Drupal/lrtp\\_paths](http://www.ctps.org/Drupal/lrtp_paths). September 2011.

<sup>39</sup> Boston Region MPO, *TIP and Air Quality Conformity Determination: Federal Fiscal Years 2014-17*, [http://www.ctps.org/Drupal/data/pdf/plans/TIP/FFYs\\_2014\\_2017\\_Final\\_TIP\\_080613.pdf](http://www.ctps.org/Drupal/data/pdf/plans/TIP/FFYs_2014_2017_Final_TIP_080613.pdf). July 2013.

<sup>40</sup> Boston Region MPO, *Long-Range Transportation Plan - Paths to a Sustainable Region*.

<sup>41</sup> BACTS, *Long Range Transportation Plan 2011-2035*, [http://www.bactsmo.org/document\\_upload/Final%20LRP%2020112.pdf](http://www.bactsmo.org/document_upload/Final%20LRP%2020112.pdf). June 2011.

<sup>42</sup> BACTS, *Transportation Improvement Program Fiscal Year 2012-2015*, [http://www.bactsmo.org/document\\_upload/Final%20FY%202012-2013%20TIP4.pdf](http://www.bactsmo.org/document_upload/Final%20FY%202012-2013%20TIP4.pdf). August 2011.

<sup>43</sup> Central Massachusetts MPO, 2012 *Regional Transportation Plan*, <http://www.cmrpc.org/2012-regional-transportation-plan>. September 2011.

Table 1. Planning and Budget Document Comparison	Planning Document Summary	Budget Summary
<b>Southeastern Massachusetts MPO (MA)</b>	One of the recommendations mentioned in the <i>Regional Transportation Plan</i> is to retrofit existing fleets and vehicles to use biodiesel or other clean fuels. <sup>45</sup>	No mention of alternative fuels. <sup>46</sup>
<b>Addison County Regional Planning Commission</b>	The <i>Regional Plan</i> mentions initiatives for alternative fuels and biodiesel as well as fuel efficiency. <sup>47</sup>	No mention of alternative fuels. <sup>48</sup>
<b>Pioneer Valley MPO</b>	The <i>Regional Transportation Plan</i> includes promoting EVSE, HEV, and fuel-efficient vehicles. Retrofitting existing fleet vehicles to use biodiesel is also mentioned. <sup>49</sup>	There is funding allocated for replacement buses but alternative fuels are not specified. <sup>50</sup>

## Part 5: State-Level Transportation Planning

In addition to understanding the plans and projects at the planning organization level, it is important to examine plans available from state transportation agencies, as well as those plans published by state energy agencies that include a transportation component. As is described in Section 2.2, funding from U.S. DOT is funneled through the state agencies before being allocated to MPOs, and MPO plans must be in sync with their state-level counterparts.

The state transportation agency responsible for planning, programming, and project implementation must work in cooperation with other transportation authorities (e.g., local governments, ports, highway toll authority). State agencies must also complete three plans similar to the MPO plans in order to receive federal funding:

- **State Planning and Research (SPR) Program:** Similar to the UPWP.
- **Long-Range Statewide Transportation Plan (LRSTP):** Similar to the MTP/LRTP.
- **Statewide Transportation Improvement Program (STIP):** Similar to the TIP.<sup>51</sup>

The following sections summarize information in the most current LRSTPs, STIPs, and energy plans available from Maine, Massachusetts, and Vermont.

<sup>44</sup> Central Massachusetts MPO, 2014-2017 TIP, [http://www.cmrpc.org/sites/default/files/Documents/Trans/Study\\_and\\_Plan/TIP%202014-2017/CMMPO%20Endorsed%202014%20to%202017%20TIP%20document.pdf](http://www.cmrpc.org/sites/default/files/Documents/Trans/Study_and_Plan/TIP%202014-2017/CMMPO%20Endorsed%202014%20to%202017%20TIP%20document.pdf). June 2013.

<sup>45</sup> Southern Massachusetts MPO, *Regional Transportation Plan*, [http://www.srpdd.org/manager/external/ckfinder/userfiles/files/Transportation/Regional%20Transportation%20Plan/full\\_tplan2012.pdf](http://www.srpdd.org/manager/external/ckfinder/userfiles/files/Transportation/Regional%20Transportation%20Plan/full_tplan2012.pdf). 2012.

<sup>46</sup> *ibid*

<sup>47</sup> Addison County RPC, *Addison County Regional Plan*, <http://files.acrpc.org/flipbook/files/assets/downloads/publication.pdf>. December 2011.

<sup>48</sup> Addison County RPC, *VTrans Capital Program Projects*, [http://www.acrpc.info/transportation/VTrans/VTrans\\_CapitalProgramTAC\\_PriorityStatus\\_Final.pdf](http://www.acrpc.info/transportation/VTrans/VTrans_CapitalProgramTAC_PriorityStatus_Final.pdf).

<sup>49</sup> Pioneer Valley MPO, 2012 *Regional Transportation Plan for the Pioneer Valley Metropolitan Planning Organization*, [http://www.pvpc.org/resources/transport/2011-rtp/2012%20Final%20RTP\\_9\\_21\\_11\\_web.pdf](http://www.pvpc.org/resources/transport/2011-rtp/2012%20Final%20RTP_9_21_11_web.pdf). July 2012.

<sup>50</sup> Pioneer Valley MPO, *TIP*, <http://www.pvpc.org/resources/transport/tip/2014-2017/updated/2014-2017%20TIP%20Tables.pdf>. May 2013.

<sup>51</sup> U.S. DOT, *Transportation Planning Process: Key Issues: A Briefing Book for Transportation Decisionmakers, Officials, and Staff*.



## 5.1 Maine (MaineDOT)

Maine's LRSTP, *Connecting Maine*, includes several mentions of alternative fuels and other petroleum reduction strategies. The section devoted to "Forces Shaping the Future" states:

Despite the desire to switch to cleaner fuels, the limited availability of these alternative fuels currently hinders the transition to them. MaineDOT will focus on increasing the use and availability of these alternative fuels.<sup>52</sup>

The plan goes on to explain how new vehicle technologies for passenger vehicles and trucks focus on fuel efficiency and emissions reductions, resulting in better air quality. Local ethanol production (corn and cellulosic feedstocks), HEVs, EVs, and hydrogen fuel cell vehicles are also mentioned as technologies that will be commercially-available during the 20-year life span of the LRSTP. However, it is noted that these advancements will result in diminishing tax revenues (see Section 6 below).<sup>53</sup>

Amongst the core goals outlined in the LRSTP is to "develop and implement transportation programs that enhance quality of life," which includes "promot[ing] transportation and environmental/cultural stewardship" by "convert[ing the] public fleet to clean fuels." While "no increase in the number of public transit buses running on clean fuels" is included as an example of an unmet critical investment need, due to anticipated revenue shortfalls,<sup>54</sup> the budget overview mentions the following: "Replace buses such that 50% of the transit fleet retains more than 50% of its useful life. Continue to transition fleets to clean fuels to improve air quality."<sup>55</sup>

The most recent Maine STIP, *2014-2017 STIP*, does not mention alternative fuel vehicles and infrastructure.

Maine's *Comprehensive Energy Plan* sets concrete goals and objectives for reducing emissions in the transportation sector and emphasizes strategies at the regional, state, and local levels. It calls for a separate strategic plan to expand alternative fuel infrastructure development, specifically CNG, ethanol, and propane fueling stations. The plan focuses on the potential for AFVs in school bus, public transit, public works, state, and private fleets. It also calls on the state to explore the viability of producing renewable natural gas from biogas at sewage treatment plants. Regionally, Maine continues to collaborate with the Regional Greenhouse Gas Initiative states to decrease fuel emissions. Maine is also partnering with other states to implement a regional low carbon fuel standard (LCFS), which will help the transportation sector meet its emissions goals. State fleet vehicles must meet a fuel standard of 30 miles per gallon. Maine has purchased low emission vehicles (LEVs) for its government fleet, will continue to grow the HEV fleet, and will consider other AFV options. The plan also addresses several incentives, including expanded programs for communities to purchase clean fuel vehicles, state tax incentives for the purchase of biodiesel and HEVs, and a Truck Efficiency Tax Incentives program that would encourage fleets to increase fuel efficiency, decrease emissions, and limit idling.<sup>56</sup>

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<sup>52</sup> MaineDOT, *Connecting Maine: Maine's Long Range Transportation Plan*.

<sup>53</sup> *ibid*

<sup>54</sup> *ibid*

<sup>55</sup> *ibid*

<sup>56</sup> Governor's Office of Energy Independence and Security, *State of Maine Comprehensive Energy Plan 2008-2009*, <http://maine.gov/energy/pdf/OEIS%20Comp%20Energy%20Plan.pdf>. 2009.

## 5.2 Massachusetts (MassDOT)

The Massachusetts LRSTP, *weMove Massachusetts: Planning for Performance*, includes only one reference to alternative fuels when it discusses performance outcomes related to updating Massachusetts Bay Transportation Authority (MBTA) vehicles:

The 2003 vintage compressed natural gas 60-foot articulated buses in use on the Washington Street Silver Line and on the Jamaica Plain Bus Route 39 experience frequent engine and transmission issues. These mechanical issues often result in lower capacity 40-foot vehicles being deployed on the 39 bus route with associated on-vehicle crowding, and in Silver Line Waterfront dual mode articulated vehicles being shifted to Washington Street (which in turn reduces the capacity of that specialized fleet to serve growing demand in South Boston).<sup>57</sup>

While this review of CNG buses is negative, there may be an opportunity to educate the transit agency about the improvements in technology over the last 10 years and the option for purchasing or retrofitting buses with this technology, given the existing fueling infrastructure.

The most recent Massachusetts STIP, *STIP Federal Fiscal Years 2014-2017*, summarizes ongoing activities related to alternative fuels:

With the CMAQ-funded statewide alternative fuels vehicle program, 70 new low-emission or EVs have been purchased, enabling the retirement of an equivalent number of MassDOT vehicles. This program will continue through Federal Fiscal Year (FFY) 2014 and will enable the purchase of an additional 75 vehicles.<sup>58</sup>

The STIP also discusses the introduction of the new EV licenses plate and the associated high-occupancy vehicle lanes. It goes on to summarize projects that may be eligible for various federal funding programs, including AFVs and fueling stations from CMAQ funding, and electric and natural gas vehicle charging infrastructure and advanced truck stop electrification from STP funding.<sup>59</sup>

In December 2012, MassDOT released the *GreenDOT Implementation Plan*.<sup>60</sup> While this plan is separate from the LRSTP, STIP, and U.S. DOT requirements, it includes aggressive goals in the area of alternative fuels and vehicle efficiency. Under the goal of reducing GHG emissions, it includes three relevant tasks related to the MassDOT fleet and facilities, each with quantifiable and time-bound indicators:

- **Increase vehicle electrification facilities.** Indicators include truck-stop electrification and EVSE at state highway system facilities, transit parking areas, and park and ride locations, as well as a feasibility analysis on electric and fuel cell buses.

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<sup>57</sup> MassDOT, *weMove Massachusetts: Planning for Performance*.

<sup>58</sup> MassDOT, Massachusetts Draft STIP for Federal Fiscal Years 2014-2017.

<sup>59</sup> *ibid*

<sup>60</sup> MassDOT, *GreenDOT Implementation Plan*, <http://www.massdot.state.ma.us/Portals/0/docs/GreenDOT/finalImplementation/FinalGreenDOTImplementationPlan12.12.12.pdf>, December 2012.



- **Increase use of alternative and renewable fuels.** Indicators include the use of recycled vegetable oil and non-food stocks for biodiesel blends, volume purchasing of alternative fuels across facilities and divisions, a biodiesel pilot, and implementing at least two alternative fueling options at all highway service areas.
- **Increase fuel efficiency of light-duty vehicles.** Indicators include the purchasing 75 new hybrid, CNG, or EVs, as well as replacing 50% of the light-duty fleet with zero or partially ZEVs.

The *Massachusetts Clean Energy and Climate Plan for 2020* includes an overview of the commonwealth's strategies to increase fuel efficiency and reduce emissions in the transportation sector. Transportation is expected to constitute nearly 40% of the commonwealth's total GHG emissions in 2020, and light-duty vehicles will likely contribute approximately 28% of that total. The plan focuses on a LCFS as the primary tool for decreasing the average carbon content of vehicle fuel. The proposed Massachusetts LCFS will account for a 5% reduction in average carbon content of light-duty vehicle fuel, but it calls on the requirements of the LCFS to become more stringent over time. Massachusetts also supports cellulosic biofuels, and exempted them from the state gasoline tax. In addition, state transit authorities such as MassDOT and the MBTA plan to utilize technologies like truck stop electrification and low emission transit buses to increase fuel efficiency and decrease GHG emissions. As the commonwealth plans for the future, it recognizes that the LCFS may not be sufficient to achieve its transportation goals. The plan cites alternative fuel deployment as a possible policy area for long-term planning. It uses PEVs and the associated charging infrastructure as an example of a possible policy focus for 2050.<sup>61</sup>

### 5.3 Vermont (Vermont Agency of Transportation, VTTrans)

One policy goal in the *Vermont Long Range Transportation Business Plan* is to “strengthen the economy, protect and enhance the quality of the natural environment, promote energy conservation, and improve Vermonters’ quality of life” which includes “increas[ing] use of, and support[ing] additional access to and development of, alternative fuels that could reduce Vermont’s reliance on fossil fuels” in order “to improve transportation fuel options to maintain mobility and decrease pollution and GHG emissions.” The plan outlines some of the previous and ongoing activities in this area including “initiatives to promote alternative fuels in vehicles such as the bio-diesel project in coordination with the Vermont Sustainable Jobs Fund, and the Clean Cities program – supported by the Department of Public Service.”<sup>62</sup>

In addition, the LRSTP includes an Energy Crunch Scenario under which the state would have “to consider the impacts of an increased need for alternative fuels and alternative fueled vehicles, alternative transportation modes (e.g., public transit), and major price increases in non-renewable fuels,” which would have significant impacts on fuel taxes.<sup>63</sup>

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<sup>61</sup> Massachusetts Executive Office of Energy and Environmental Affairs, *Massachusetts Clean Energy and Climate Plan for 2020*, <http://www.mass.gov/eea/docs/eea/energy/2020-clean-energy-plan.pdf>. 2010.

<sup>62</sup> VTTrans, *Vermont Long Range Transportation Business Plan*.

<sup>63</sup> *ibid*

Lastly, the plan calls for VTrans employees, consultants, and contractors to follow certain environmental principles, including “considering the use of alternative fuels in Agency operations.”<sup>64</sup>

The most recent Vermont STIP, *STIP for Fiscal Years 2014-2017*, does not mention alternative fuel vehicles and infrastructure.

Based on the state’s *Comprehensive Energy Plan*, Vermont is involved in a variety of collaborative and independent efforts to encourage emissions reductions, reduce petroleum use, and increase fuel efficiency in the transportation sector. For instance, Vermont adopted California’s LEV standards and ZEV requirements and is pursuing significant efforts to accelerate PEV deployment in the state. Vermont is also a member of the regional LCFS effort, which also includes Massachusetts and Maine. The plan sets goals to (1) meet 90% of the state’s energy needs from renewable sources by 2050, (2) ensure that 25% of all vehicles registered in the state are powered by renewable sources by 2030, (3) improve the combined average fuel economy of vehicles in Vermont to meet the federal standard or improve the average by 5% by 2025, and (4) increase the number of medium- and heavy-duty vehicles powered by biodiesel or CNG by up to 10% by 2030. In addition to the activities already underway, the following collaborative strategies are highlighted to achieve the state’s goals:

- **Preparation for increased PEV use in the state**, including improved permitting processes for EVSE, utility economic and electric capacity models for PEVs, siting and design guidelines for EVSE, a demonstration project for PEV charging in state parking lots, and expansion of incentive programs for residential EVSE installation.
- **Continued support of the biodiesel industry**, which includes possible technical assistance for farmers, producers, and dealers.
- **Possible expansion of incentives for AFVs and more efficient vehicles**, including a freebate program.
- **Support for a state eco-driving program, idle reduction regulations, and programs for fleets** interested in alternative fuels and other petroleum reduction strategies.<sup>65</sup>

## Part 6: Conclusions and Missed Opportunities for Alternative Fuel and Advanced Vehicle Investments

Most planning organizations in Maine, Massachusetts, and Vermont include some mention of alternative fuel vehicles and infrastructure in their planning documentation. However, there are clearly missed opportunities for future investment in these projects, as well as opportunities to overcome challenges currently facing transportation agencies. These include:

- **Implementing priorities identified in planning documents.** Based on the analysis in Section 4.2, many planning organization documents include policies and strategies related to alternative fuel vehicles and infrastructure but the organizations have not

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<sup>64</sup> *ibid*

<sup>65</sup> Vermont Department of Public Service, *Comprehensive Energy Plan*, [http://publicservice.vermont.gov/sites/psd/files/Pubs\\_Plans\\_Reports/State\\_Plans/Comp\\_Energy\\_Plan/2011/2011%20CEP\\_Volume%20%5B1%5D.pdf](http://publicservice.vermont.gov/sites/psd/files/Pubs_Plans_Reports/State_Plans/Comp_Energy_Plan/2011/2011%20CEP_Volume%20%5B1%5D.pdf), 2011.

acted upon these plans. For example, the Southern Massachusetts MPO (MA) *Regional Transportation Plan* recommends the following:

Purchase and retrofit facilities, vehicles and equipment to run cleaner and more fuel efficiently. Develop an intern program with colleges, universities and high schools to retrofit existing fleets/vehicles to use biodiesel or other clean fuel; retrofit fleets with filters to reduce air pollution. Purchase vehicles that use less fuel and cleaner fuel that produces fewer emissions.<sup>66</sup>

However, none of these priorities are specifically included in the *Regional Transportation Plan* financials section.

- **Incorporating alternative fuels in vehicle replacement plans.** Several planning organizations state their intent to replace existing vehicles, vans, and buses in regional fleets but do not specify whether AFVs will be priority. For example, the Chittenden County MPO (VT) TIP budget allocates funding for two new buses but does not specify alternative fuels.<sup>67</sup> AFVs can also be incorporated into evaluation criteria in requests for proposals (RFPs) for projects involving vehicle use. For example, a recently-posted RFP from Southern Maine Planning and Development Commission (SMPDC, ME) and KACTS (ME) is looking for demand response vehicle services. It does not include the use of AFVs in the evaluation criteria, but the planning organizations could easily give extra weight to projects that incorporate these vehicles without increasing the project cost.<sup>68</sup>
- **Implementing planning organization subcommittees on alternative fuels and infrastructure.** MPOs have advisory committees to provide guidance on specific issues. According to U.S. DOT's *Transportation Planning Process: Key Issues*, "it is common for an MPO to have a Technical Advisory Committee and Citizen Advisory Committee, and to have subcommittees on specific issues such as environmental justice, bicycle issues, or travel demand modeling."<sup>69</sup> To draw more attention to advanced transportation options, MPOs and other planning organizations may consider implementing a subcommittee on alternative fuels and infrastructure. Clean Cities coalitions may wish to take part in these committees.
- **Ensuring that alternative fuels are included in discussions around sustainability.** Planning organizations are becoming increasingly focused on sustainability. Environmental benefits are often cited when discussing more traditional transportation improvement projects. For example, the Androscoggin Transportation Resource Center's (ATRC, ME) *Connecting the Future* plan mentions the environmental benefits associated with park-and-ride facilities.<sup>70</sup> However, the document does not mention the environmental benefits of alternative fuel vehicles and infrastructure. There may be an opportunity to educate planning organizations on how these petroleum reduction strategies can help meet the same goals as the more traditional transportation planning projects.
- **Addressing the issue of decreasing fuel tax revenues.** As discussed in Section 5, an interesting challenge with alternative fuel and fuel-efficient vehicles is the decrease in

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<sup>66</sup> Southern Massachusetts MPO, *Regional Transportation Plan*.

<sup>67</sup> Chittenden County RPC, *TIP for Fiscal Years 2014*.

<sup>68</sup> SMPDC KACTS, RFP: Demand Response Transportation Service, <http://www.smrpc.org/transportation/kacts/KACTS%205307%20RFP.pdf>, 2014.

<sup>69</sup> U.S. DOT, *Transportation Planning Process: Key Issues: A Briefing Book for Transportation Decisionmakers, Officials, and Staff*.

<sup>70</sup> ATRC, *Connecting the Future: Transportation Plan for 2013-2035*.

highway motor tax funds, which is noted in several of the planning organization documents. For example, the Chittenden County MPO (VT) mentions in their *ECOS Plan* that state and federal gas taxes are “decreasing in value as inflation lowers purchasing power and revenues decline due to improving vehicle fuel efficiency.” Chittenden County is encouraging municipalities to implement local transportation funding programs and other taxes or fees to address this.<sup>71</sup> BACTS’ (ME) *Long Range Transportation Plan 2011-2035* also mentions declining revenues for transportation financing, stating that although AFVs benefit the consumer and the environment, the reduced revenue needs to be addressed.<sup>72</sup> The planning organizations would benefit from education on how AFVs and fuel-efficient vehicles may affect tax revenues, and how these disadvantages are offset by other benefits. For example, in Maine, the Clean Cities coalition worked with the state to ensure that alternative fuels are taxed commensurately with conventional fuels on an energy content basis.<sup>73</sup> As one of the first states to implement this policy, Maine removed the barrier to alternative fuel deployment. While electricity is not yet included in the tax on fuels, this issue will likely be addressed by the Maine Legislature soon.

Many of the opportunities mentioned above will be addressed as part of the next phase of this work, which will involve education and outreach to the planning organizations. An active and ongoing relationship with local Clean Cities coalitions will also increase the likelihood that AFVs and infrastructure are considered in upcoming transportation planning and budgeting activities.

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<sup>71</sup> Chittenden County MPO, 2013 Chittenden County ECOS Plan.

<sup>72</sup> BACTS, Long Range Transportation Plan 2011-2035, [http://www.bactsmmpo.org/document\\_upload/Final%20LRP%2020112.pdf](http://www.bactsmmpo.org/document_upload/Final%20LRP%2020112.pdf). June 2011.

<sup>73</sup> Maine Revenue Services, Fuel Tax Rates, <http://www.state.me.us/revenue/fueltax/fueltaxrates.htm>. Accessed March 4, 2014.

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## Appendix A – Planning Organization Summary and Outreach

Planning Organization	Parent or Associated Organization	Website	State	DOT-Designated?	Major City	Area (Sq Miles)	2010 Census Population	Designation	First Name	Last Name	Email	Phone Number	Outreach Summary
Berkshire MPO	Berkshire Regional Planning Commission	<a href="http://berkshirereplanning.org/">http://berkshirereplanning.org/</a>	MA	No	Pittsfield	945	131,232	1972	Clete	Kus	<a href="mailto:managerckus@berkshirereplanning.org">managerckus@berkshirereplanning.org</a>	413-442-1521	None
Boston Region MPO	Metropolitan Area Planning Council provides planning support to the MPO	<a href="http://www.ctps.org/Drupal/">http://www.ctps.org/Drupal/</a>	MA	Yes	Boston	1,458	3,159,512	1973	Karl	Quackenbush	<a href="mailto:kquackenbush@ctps.org">kquackenbush@ctps.org</a>	617-973-7100	None
Cape Cod MPO	Cape Cod Commission	<a href="http://www.apecodcommission.org/index.php?id=164">http://www.apecodcommission.org/index.php?id=164</a>	MA	Yes	Barnstable	444	215,881	1990	Priscilla	Leclerc	<a href="mailto:pleclerc@apecodcommission.org">pleclerc@apecodcommission.org</a>	508-362-3828	None
Central Massachusetts MPO	Central Massachusetts Regional Planning Commission	<a href="http://www.cmrpc.org/cmmpo">http://www.cmrpc.org/cmmpo</a>	MA	Yes	Worcester	959	556,910	1976	Mary Ellen	Blunt	<a href="mailto:mblunt@cmrpc.org">mblunt@cmrpc.org</a>	508-756-7717	None
Franklin Regional Council of Governments		<a href="http://www.frcog.org/services/transportation/index.php">http://www.frcog.org/services/transportation/index.php</a>	MA	No	Greenfield				Maureen	Mullane	<a href="mailto:mmullaney@frcog.org">mmullaney@frcog.org</a>	413-774-3167 x129	None
Martha's Vineyard Commission		<a href="http://www.mvcommission.org/planning/transportation.html">http://www.mvcommission.org/planning/transportation.html</a>	MA	No	Oak Bluffs				Mike	Mauro	<a href="mailto:mmauro@mvcommission.org">mmauro@mvcommission.org</a>	508-693-3453 x16	None
Merrimack Valley MPO	Merrimack Valley Planning Commission	<a href="http://mvpc.org/programs/transportation/merrimack-valley-metropolitan-planning-organization/">http://mvpc.org/programs/transportation/merrimack-valley-metropolitan-planning-organization/</a>	MA	Yes	Haverhill	283	333,357	1976	Anthony	Komornick	<a href="mailto:akomornick@mvpc.org">akomornick@mvpc.org</a>	978-374-0519	None

Planning Organization	Parent or Associated Organization	Website	State	DOT-Designated?	Major City	Area (Sq Miles)	2010 Census Population	Designation	First Name	Last Name	Email	Phone Number	Outreach Summary
Montachusett MPO	Montachusett Regional Planning Commission	<a href="http://www.mrpc.org/transportation/pages/montachusett-metropolitan-planning-organization-mpo">http://www.mrpc.org/transportation/pages/montachusett-metropolitan-planning-organization-mpo</a>	MA	Yes	Fitchburg	683	236,482	1987	Brad	Harris	<a href="mailto:bharris@mrpc.org">bharris@mrpc.org</a>	978-345-7376	None
Nantucket Planning and Economic Development Commission		<a href="http://www.nantucket-ma.gov/Pages/nantucketma_planning/npe_dc">http://www.nantucket-ma.gov/Pages/nantucketma_planning/npe_dc</a>	MA	No	Nantucket				Andrew	Vorce	<a href="mailto:avorce@nantucket-ma.gov">avorce@nantucket-ma.gov</a>	508-325-7587	None
Northern Middlesex MPO	Northern Middlesex Council of Governments	<a href="http://www.nmcog.org/transportationplanning.htm">http://www.nmcog.org/transportationplanning.htm</a>	MA	Yes	Lowell	195	286,951	1976	Beverly	Woods	<a href="mailto:bwoods@nmcog.org">bwoods@nmcog.org</a>	978-454-8021	None
Old Colony MPO	Old Colony Planning Council	<a href="http://www.ocpcrpa.org/mpo.html">http://www.ocpcrpa.org/mpo.html</a>	MA	Yes	Brockton	303	288,628	1972	Pasquale	Ciaramella	<a href="mailto:pciaramella@ocpcrpa.org">pciaramella@ocpcrpa.org</a>	508-583-1833	None
Pioneer Valley MPO	Pioneer Valley Planning Commission	<a href="http://www.pvpc.org/activities/transportation-mpo.shtml">http://www.pvpc.org/activities/transportation-mpo.shtml</a>	MA	Yes	West Springfield	1,178	621,823	1976	Dana	Roscoe	<a href="mailto:droscoe@pvpc.org">droscoe@pvpc.org</a>	413-781-6045	Emailed for TIP. Responded with relevant information.
Southeastern Massachusetts MPO	Southeastern Regional Planning and Economic Development District	<a href="http://www.srpdedd.org/transportation">http://www.srpdedd.org/transportation</a>	MA	Yes	Taunton	823	616,689	1998	James	Hadfield	<a href="mailto:jhadfield@srpedd.org">jhadfield@srpedd.org</a>	508-824-1367	None
Androscoggin Transportation Resource Center	Androscoggin Valley Council of Governments	<a href="http://www.avcog.org/index.aspx?NID=878">http://www.avcog.org/index.aspx?NID=878</a>	ME	Yes	Auburn	133	71,212	1964	Jennifer	Williams	<a href="mailto:jwilliams@avcog.org">jwilliams@avcog.org</a>	207-783-9186	Emailed for LRTP, TIP, and other documents. Responded with relevant information.
Bangor Area Comprehensive Transportation System (BACTS)		<a href="http://www.bactsmo.org/">http://www.bactsmo.org/</a>	ME	Yes	Bangor	82	67,385	1982	Rob	Kenerson	<a href="mailto:rkenserson@emdc.org">rkenserson@emdc.org</a>	207-942-6389	None



Planning Organization	Parent or Associated Organization	Website	State	DOT-Designated?	Major City	Area (Sq Miles)	2010 Census Population	Designation	First Name	Last Name	Email	Phone Number	Outreach Summary
Eastern Maine Development Corporation		<a href="http://www.emdc.org/page/953-740/tiger-2-transportation">http://www.emdc.org/page/953-740/tiger-2-transportation</a>	ME	No	Bangor				Vicki	Rusbult	<a href="mailto:vrusbult@emdc.org">vrusbult@emdc.org</a>	207-942-6389	Emailed for any plans. Responded with relevant information.
Hancock County Planning Commission		<a href="http://www.hcpcme.org/transport.html">http://www.hcpcme.org/transport.html</a>	ME	No	Ellsworth				Jim	Fisher	<a href="mailto:jfisher@hcpcme.org">jfisher@hcpcme.org</a>	207-667-7131	Emailed for any plans. Responded with relevant information.
Kennebec Valley Council of Governments		<a href="http://www.kvcog.org/">http://www.kvcog.org/</a>	ME	No	Fairfield				Rosie	Vanadestine	<a href="mailto:rvanadestine@kvcog.org">rvanadestine@kvcog.org</a>	207-453-4258	Emailed for any plans. Responded with relevant information.
Kittery Area Comprehensive Transportation Study	This MPO straddles ME/NH border. Southern Maine Planning and Development Commission houses the Maine portion of the MPO.	<a href="http://www.smrpc.org/transportation/kacts.htm">http://www.smrpc.org/transportation/kacts.htm</a>	ME	Yes	Kittery, ME & Portsmouth-Dover-Rochester, NH	36	20,761	1982	Tom	Reinauer	<a href="mailto:treinauer@smrpc.org">treinauer@smrpc.org</a>	207-324-2952	None
Mid-Coast Regional Planning Commission		<a href="http://www.midcoastplanning.org/">http://www.midcoastplanning.org/</a>	ME	No	Rockland				Eric	Gallant	<a href="mailto:mcrpc@midcoast.com">mcrpc@midcoast.com</a>	207-594-2299	Emailed for any plans. Responded with relevant information.
Northern Maine Development Commission		<a href="http://www.nmdc.org/profile/transportation.html">http://www.nmdc.org/profile/transportation.html</a>	ME	No	Caribou				Robert	Clark	<a href="mailto:rclark@nmdc.org">rclark@nmdc.org</a>	207-498-8736	Emailed for any plans. No response.
Portland Area Comprehensive Transportation Committee/Greater Portland Council of Governments		<a href="http://www.pactsplan.org/">http://www.pactsplan.org/</a>	ME	Yes	Portland	170	200,369	1975	John	Duncan	<a href="mailto:jduncan@gpcog.org">jduncan@gpcog.org</a>	207-774-9891	None
Southern Maine Planning and Development Commission		<a href="http://www.smrpc.org/">http://www.smrpc.org/</a>	ME	No	Springvale				Paul	Schumacher	<a href="mailto:pschumacher@smrpc.org">pschumacher@smrpc.org</a>	207-324-2952	None

Planning Organization	Parent or Associated Organization	Website	State	DOT-Designated?	Major City	Area (Sq Miles)	2010 Census Population	Designation	First Name	Last Name	Email	Phone Number	Outreach Summary
Washington County Council of Governments		<a href="http://www.wccog.net/transportation-planning.htm">http://www.wccog.net/transportation-planning.htm</a>	ME	No	Calais				Judy	East	<a href="mailto:iceast@wccog.net">iceast@wccog.net</a>	207-454-0465	None
Addison County Regional Planning Commission		<a href="http://acrpc.org/programs-services/transportation/">http://acrpc.org/programs-services/transportation/</a>	VT	No	Middlebury				Daryl	Benoit	<a href="mailto:dbenoit@acrpc.org">dbenoit@acrpc.org</a>	802-388-3141	Emailed for updated plans. Responded with relevant information.
Bennington County Regional Commission		<a href="http://www.rpc.bennington.vt.us/Programs/Transportation/">http://www.rpc.bennington.vt.us/Programs/Transportation/</a>	VT	No	Bennington				Mark	Anders	<a href="mailto:manders@bcrvvt.org">manders@bcrvvt.org</a>	802-442-0713 x3	Emailed for updated plans. Responded with relevant information.
Central Vermont Regional Planning Commission		<a href="http://centralvtplanning.org/programs/transportation/">http://centralvtplanning.org/programs/transportation/</a>	VT	No	Montpelier				Steve	Gladczuk	<a href="mailto:gladczuk@cvregion.com">gladczuk@cvregion.com</a>	802-229-0389	Emailed for updated plans. Responded with relevant information.
Chittenden County MPO	Chittenden County Regional Planning Commission	<a href="http://www.ccrpcvt.org/transportation/">http://www.ccrpcvt.org/transportation/</a>	VT	Yes	Burlington	618	156,567	1983	Charlie	Baker	<a href="mailto:cbaker@ccrpcvt.org">cbaker@ccrpcvt.org</a>	802-660-4071	None
Lamoille County Planning Commission		<a href="http://www.lcpcvt.org/">http://www.lcpcvt.org/</a>	VT	No	Morrisville				Amanda	Holland	<a href="mailto:amanda@lcpcvt.org">amanda@lcpcvt.org</a>	802-888-4548	Emailed for updated plans. Responded with relevant information.
Northeastern Vermont Development Association		<a href="http://www.nvda.net/transportation-planning.php">http://www.nvda.net/transportation-planning.php</a>	VT	No	St. Johnsbury				Doug	Morton	<a href="mailto:morton@nvda.net">morton@nvda.net</a>	802-748-1221	None
Northwest Regional Planning Commission		<a href="http://www.nrpcvt.com/TransportationPlanning.html">http://www.nrpcvt.com/TransportationPlanning.html</a>	VT	No	St. Albans				Bethany	Remmers	<a href="mailto:bethany@nrcvt.com">bethany@nrcvt.com</a>	802-524-5958	Emailed for updated plans. Responded with relevant information.
Rutland Regional Planning Commission		<a href="http://www.rutlandrpc.org/transportation.php">http://www.rutlandrpc.org/transportation.php</a>	VT	No	Rutland				Susan	Schreibman	<a href="mailto:susan@rutlandrpc.org">susan@rutlandrpc.org</a>	802-775-0871	Emailed for updated plans. Responded with relevant information.

Planning Organization	Parent or Associated Organization	Website	State	DOT-Designated?	Major City	Area (Sq Miles)	2010 Census Population	Designation	First Name	Last Name	Email	Phone Number	Outreach Summary
Southern Windsor County Regional Planning Commission		<a href="http://swcrpc.org/">http://swcrpc.org/</a>	VT	No	Ascutney				Katharine	Otto	<a href="mailto:kotto@swcrpc.org">kotto@swcrpc.org</a>	802-674-9201	Emailed for updated plans. Responded with relevant information.
Two Rivers-Ottawaquechee Regional Commission		<a href="http://www.trorc.org/programs/transportation/">http://www.trorc.org/programs/transportation/</a>	VT	No	Woodstock				Rita	Sito	<a href="mailto:rseto@trorc.org">rseto@trorc.org</a>	802-457-3188 x13	None
Windham Regional Commission		<a href="http://windhamregional.org/transportation">http://windhamregional.org/transportation</a>	VT	No	Brattleboro				Matt	Mann	<a href="mailto:mmann@windhamregional.org">mmann@windhamregional.org</a>	802-257-4547 x120	None



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## Appendix B – Sample Planning Organization Outreach

### Schayowitz, Alexis

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**From:** Steve Linnell <slinnell@gpcog.org>  
**Sent:** Friday, January 17, 2014 4:16 PM  
**To:** jfisher@hcpcme.org  
**Cc:** Schayowitz, Alexis; Brown, Abby  
**Subject:** Hancock County Planning Commission Transportation Plans

Dear Jim,

Maine Clean Communities is working with Clean Cities coalitions around New England on a U.S. Department of Energy grant related to alternative fuel and advanced vehicle markets. Part of the grant covers education and outreach to municipal planning organizations (MPOs) and regional planning commissions (RPC) in New England. The first step is a literature review of recent MPO and RPC transportation planning documentation.

We were not able to find any relevant plans on the Hancock County Planning Commission website (<http://www.hcpcme.org/transport.html>) and we are hoping you can point us in the right direction. Specifically, we are looking for any long-range transportation plans, transportation improvement program documents, regional transportation plans, or overarching regional plans that have a transportation component. We are interested in these documents, even if they do not include any information on alternative fuels.

If you have anything to share, please feel free to email an attachment or point us to the right place on your website. If you are not the appropriate contact at your organization, please recommend an alternate contact if possible.

Thank you in advance for your assistance. If you would like to learn more about Maine Clean Communities please feel free to visit our website (<http://mainecleancommunities.gpcog.info/>) or contact me directly.

Please also watch for emails from me over the next several months about additional education opportunities related to alternative fuels and advanced vehicles.

Sincerely,

Steven J. Linnell  
Director of Transportation and Energy Planning  
Greater Portland Council of Governments  
970 Baxter Boulevard  
Portland, Maine 04103  
Tel: (207) 774-9891  
Fax: (207) 774-7149  
e-mail: [slinnell@gpcog.org](mailto:slinnell@gpcog.org)  
<http://www.gpcog.org>

Coordinator  
Maine Clean Communities = MC<sup>2</sup>  
<http://mainecleancommunities.gpcog.info/>





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## Appendix C – Literature Review Summary

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Berkshire MPO	MA	2012 Regional Transportation Plan	<a href="http://berkshireplanning.org/images/uploads/documents/Regional_Transportation_Plan_2011.pdf">http://berkshireplanning.org/images/uploads/documents/Regional_Transportation_Plan_2011.pdf</a>	August-11		Chapter VIII - Recommendations Section G: Climate Change and Environmental Mitigation mentions support of efficiency standards similar to those proposed by California or the U.S. Environmental Protection Agency (EPA) and incentivize fuel-efficient vehicles to replace gas guzzlers, and support low carbon fuels.	low carbon fuel(s), fuel efficient vehicle(s)
Berkshire MPO	MA	Transportation Improvement Program: 2013-2017	<a href="http://berkshireplanning.org/images/uploads/documents/FY_14-17_TIP_Document_Reduced.pdf">http://berkshireplanning.org/images/uploads/documents/FY_14-17_TIP_Document_Reduced.pdf</a>	June-13		No mention of alternative fuel vehicles or infrastructure.	
Boston Region MPO	MA	Long-Range Transportation Plan - Paths to a Sustainable Region	<a href="http://www.ctps.org/Drupal/lrt_paths">http://www.ctps.org/Drupal/lrt_paths</a>	September-11	Amendment 1: <a href="http://www.ctps.org/Drupal/data/pdf/plans/LRTP/paths/2035_LRTP_Final_Amendment.pdf">http://www.ctps.org/Drupal/data/pdf/plans/LRTP/paths/2035_LRTP_Final_Amendment.pdf</a> Amendment 2: <a href="http://www.ctps.org/Drupal/data/pdf/plans/LRTP/paths/2035_LRTP_Final_Amendment.pdf">http://www.ctps.org/Drupal/data/pdf/plans/LRTP/paths/2035_LRTP_Final_Amendment.pdf</a>	One of the policies mentioned in Chapter 2 is to promote fleet management and modernization, idling reduction, and alternative fuel use. Compressed natural gas (CNG) buses and refueling equipment are mentioned in Chapter 4.	alternative fuel(s), idle reduction, compressed natural gas, refueling infrastructure/fueling infrastructure
Boston Region MPO	MA	Transportation Improvement Program and Air Quality Conformity Determination: Federal Fiscal Years 2014–17	<a href="http://www.ctps.org/Drupal/data/pdf/plans/TIP/FFYs_2014_2017_Final_TIP_080613.pdf">http://www.ctps.org/Drupal/data/pdf/plans/TIP/FFYs_2014_2017_Final_TIP_080613.pdf</a>	July-13	Amendment 1: <a href="http://www.ctps.org/Drupal/data/pdf/plans/tip/FFYs_2014_2017_Amend_One_Public_Review_Tables.pdf">http://www.ctps.org/Drupal/data/pdf/plans/tip/FFYs_2014_2017_Amend_One_Public_Review_Tables.pdf</a>	Alternative fuels and idle reduction are mentioned as options to help meet greenhouse gas (GHG) reduction targets.	alternative fuel(s), idle reduction

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Cape Cod MPO	MA	Cape Cod 2012 Regional Transportation Plan 2012-2035	<a href="http://www.capecodcommission.org/resources/transportation/rtp/CapeCodRTP_Revised_05202013.pdf">http://www.capecodcommission.org/resources/transportation/rtp/CapeCodRTP_Revised_05202013.pdf</a>	May-13		The Renewable Fuel Partnership is a regional effort mentioned as a possible partner.	biodiesel, ethanol/E85, renewable fuel(s)
Cape Cod MPO	MA	Cape Cod Transportation Improvement Program (TIP) for Federal Fiscal Years 2014-2017	<a href="http://www.capecodcommission.org/resources/transportation/tip/CapeCod_TIP14-17_endorsed06242013.pdf">http://www.capecodcommission.org/resources/transportation/tip/CapeCod_TIP14-17_endorsed06242013.pdf</a>	June-13		Alternative fuel vehicles (AFVs) and truck stop electrification (TSE) are in the statewide budget for 2014, although no details are given.	alternative fuel vehicle(s), truck stop electrification
Central Massachusetts MPO	MA	2012 Regional Transportation Plan	<a href="http://www.cmrpc.org/2012-regional-transportation-plan">http://www.cmrpc.org/2012-regional-transportation-plan</a>	September-11		Diesel-hybrid buses are identified as a strategy to lower emissions and improve miles per gallon. AFVs are mentioned as a performance measure for climate change in the Environmental chapter.	hybrid electric vehicle(s), alternative fuel vehicle(s)
Central Massachusetts MPO	MA	Central Massachusetts MPO 2014-2017 Transportation Improvement Program (TIP)	<a href="http://www.cmrpc.org/sites/default/files/Documents/Transportation/Study_and_Plan/TIP%202014-2017/CMMPO%20Endorsed%202014%20to%202017%20TIP%20document.pdf">http://www.cmrpc.org/sites/default/files/Documents/Transportation/Study_and_Plan/TIP%202014-2017/CMMPO%20Endorsed%202014%20to%202017%20TIP%20document.pdf</a>	June-13		No mention of alternative fuel vehicles or infrastructure.	
Franklin Regional Council of Governments	MA	2012 Regional Transportation Plan	<a href="http://www.frcog.org/services/transportation/trans_rtp.php">http://www.frcog.org/services/transportation/trans_rtp.php</a>	June-11		One of the recommendations mentioned in the introduction is to be a leader in promoting alternative fuel fleet conversion. Fuel-efficient vehicles are mentioned in the Transportation and Climate Change chapter as a way to promote sustainable transportation.	alternative fuel(s), vehicle conversion(s)/aftermarket conversion(s), fuel efficient vehicle(s)
Franklin Regional Council of Governments	MA	2013-2016 Transportation Improvement Program for the Franklin Region	<a href="http://www.frcog.org/pubs/transportation/TIP/Final_FRCOG_2013-16TIP_7-11-12.pdf">http://www.frcog.org/pubs/transportation/TIP/Final_FRCOG_2013-16TIP_7-11-12.pdf</a>	July-12	Draft 2014-2017 TIP: <a href="http://www.frcog.org/pubs/transportation/TIP/Draft_Franklin_2014-17_TIP_5-24-13.xls">http://www.frcog.org/pubs/transportation/TIP/Draft_Franklin_2014-17_TIP_5-24-13.xls</a>	No mention of alternative fuel vehicles or infrastructure.	

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Martha's Vineyard Commission	MA	Martha's Vineyard Regional Transportation Plan	<a href="http://www.mvcommission.org/doc.php/2011%20RTP%20-%20FINAL.pdf?id=3765">http://www.mvcommission.org/doc.php/2011%20RTP%20-%20FINAL.pdf?id=3765</a>	2011		AFVs are mentioned as a general action to encourage or require the use of AFVs for rental vehicles. Fuel-efficient, hybrid and all-electric vehicles are mentioned as the easiest solutions to reduce the use of fossil fuels. Hydrogen powered fuel cell vehicles are also mentioned as a long term solution. The ultimate goal is zero emissions for the island's transportation sector.	alternative fuel vehicle(s), fuel efficient vehicle(s), electric vehicle(s), fuel cell(s), hydrogen, hybrid electric vehicle(s)
Merrimack Valley MPO	MA	2012 Regional Transportation Plan	<a href="http://mvpc.org/information-center/plansstudies/">http://mvpc.org/information-center/plansstudies/</a>	January-12		The Environmental Sustainability chapter encourages the use of alternative fuels. The Regional Energy Plan will also consider how the region can address future energy needs for fueling electric, CNG, and hydrogen vehicles. It is stated that only fuel-efficient vehicles will be purchased for municipal use whenever practical.	alternative fuel(s), electric vehicle(s), compressed natural gas, hydrogen, fuel efficient vehicle(s)
Merrimack Valley MPO	MA	Merrimack Valley Metropolitan Planning Organization Final FY 2014-2017 Transportation Improvement Program	<a href="http://mvpc.org/wp-content/uploads/Final-June-2013-FINAL-2014-2017-TIP-No-Signatures-with-Map-Links.pdf">http://mvpc.org/wp-content/uploads/Final-June-2013-FINAL-2014-2017-TIP-No-Signatures-with-Map-Links.pdf</a>	June-13		No mention of alternative fuel vehicles or infrastructure.	

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Montachusett MPO	MA	2012 Montachusett Regional Transportation Plan	<a href="http://www.mrpc.org/transportation/pages/regional-transportation-plan">http://www.mrpc.org/transportation/pages/regional-transportation-plan</a>	August-11		One of the strategies for transportation is to promote the development and use of alternative fuel for transportation and transit through the expansion of support facilities, funding, policies, and incentives. Specifically, the organization is completing a cost benefit analysis on replacing existing conventional buses and vans with hybrid and alternative fuel buses. One of the green initiatives is to install electric vehicle supply equipment (EVSE) in commuter parking lots.	alternative fuel(s), hybrid electric vehicle(s), alternative fuel vehicle(s), electric vehicle supply equipment/charging stations
Montachusett MPO	MA	MPO Endorsed FFY 2014-2017 TIP	<a href="http://www.mrpc.org/sites/montachusetttrpc/files/file/file/mpo_endorsed_ffy_2014_2017_tip_6_12_2013_0.pdf">http://www.mrpc.org/sites/montachusetttrpc/files/file/file/mpo_endorsed_ffy_2014_2017_tip_6_12_2013_0.pdf</a>	June-13		Planning to purchase two hybrid electric replacement buses.	hybrid electric vehicle(s)
Nantucket Planning and Economic Development Commission	MA	Nantucket Regional Transportation Plan 2012-2013	<a href="http://www.nantucket-ma.gov/Pages/nantucketma_planning/forms/RTP2012N PEDC.pdf">http://www.nantucket-ma.gov/Pages/nantucketma_planning/forms/RTP2012N PEDC.pdf</a>	August-11		No mention of alternative fuel vehicles or infrastructure.	
Nantucket Planning and Economic Development Commission	MA	Transportation Improvement Program for the Nantucket Planning & Economic Development Commission FFY 2014-2017	<a href="http://www.nantucket-ma.gov/Pages/nantucketma_planning/transprogram/TIP 2014_Nantucket.pdf">http://www.nantucket-ma.gov/Pages/nantucketma_planning/transprogram/TIP 2014_Nantucket.pdf</a>	October-13		No mention of alternative fuel vehicles or infrastructure.	

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Northern Middlesex MPO	MA	FFY 2012-2035 Regional Transportation Plan	<a href="http://www.nmcog.org/2012-2035%20RTP%20Update/Northern%20Middlesex%20Regional%20Transportation%20Plan%202012-2035.pdf">http://www.nmcog.org/2012-2035%20RTP%20Update/Northern%20Middlesex%20Regional%20Transportation%20Plan%202012-2035.pdf</a>	2012		Northern Middlesex MPO is committed to promoting the procurement and use of zero emission vehicles (ZEVs) and AFVs. The vehicle fleet has six CNG vehicles and four hybrid electric vehicles (HEVs).	alternative fuel(s), alternative fuel vehicle(s), compressed natural gas, hybrid electric vehicle(s), zero emission vehicle(s)
Northern Middlesex MPO	MA	FFY 2014-2017 Transportation Improvement Program	<a href="http://www.nmcog.org/2014-2017%20TIP/Final%202014-2017%20NMMPO%20TIP.pdf">http://www.nmcog.org/2014-2017%20TIP/Final%202014-2017%20NMMPO%20TIP.pdf</a>	June-13		TSE and AFVs are in the statewide budget for 2014. Explicit eligibilities are added for EVSE.	alternative fuel vehicle(s), truck stop electrification, electric vehicle supply equipment/charging stations
Old Colony MPO	MA	FFY 2013-2016 Old Colony Transportation Improvement Program (TIP)	<a href="http://www.ocpcrpa.org/docs/mpo/FFY_2013_2016_Transportation_Improvement_Program_(TIP).pdf">http://www.ocpcrpa.org/docs/mpo/FFY_2013_2016_Transportation_Improvement_Program_(TIP).pdf</a>	May-13		TSE and AFVs (including hybrid buses) are in the statewide budget for 2014.	alternative fuel vehicle(s), truck stop electrification, idle reduction, hybrid electric vehicle(s)
Old Colony MPO	MA	2012 Old Colony Regional Transportation Plan	<a href="http://www.ocpcrpa.org/docs/transportation/FFY_2012_Regional_Transportation_Plan.pdf">http://www.ocpcrpa.org/docs/transportation/FFY_2012_Regional_Transportation_Plan.pdf</a>	August-11		There is a sub-chapter on Alternative Fuels and alternative fuels and AFVs are mentioned throughout the document. Definitions are given for many alternative fuels, including biofuels, ethanol, natural gas, and hydrogen fuel cells. Projects to replace existing fleet vehicles with fuel-efficient vehicles, particularly hydrogen and hybrid buses are included.	alternative fuel(s), alternative fuel vehicle(s), fuel efficient vehicle(s), hybrid electric vehicle(s), hydrogen

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Pioneer Valley MPO	MA	2012 Regional Transportation Plan for the Pioneer Valley Metropolitan Planning Organization	<a href="http://www.pvpc.org/resources/transport/2011-rtp/2012%20Final%20RTP_9_21_11_web.pdf">http://www.pvpc.org/resources/transport/2011-rtp/2012%20Final%20RTP_9_21_11_web.pdf</a>	July-12		One of the strategies mentioned is to advance and promote the use of AFVs. Ways this strategy is being addressed are: - Addressing EVSE to meet the growing electric vehicle (EV) market. - Promote energy efficient travel modes with HEVs. - Fuel-efficient vehicles for municipal use, including biodiesel and ethanol.	alternative fuel(s), alternative fuel vehicle(s), electric vehicle supply equipment/charging stations, electric vehicle(s), hybrid electric vehicle(s), biodiesel
Pioneer Valley MPO	MA	Transportation Improvement Program	<a href="http://pvpc.org/resources/transport/tip/2014-2017/updated/Final%202014-2017%20TIP_Report_July2103_WEBs.pdf">http://pvpc.org/resources/transport/tip/2014-2017/updated/Final%202014-2017%20TIP_Report_July2103_WEBs.pdf</a>	July-13		No mention of alternative fuel vehicles or infrastructure.	
Southeastern Massachusetts MPO	MA	2012 Regional Transportation Plan	<a href="http://www.srpdd.org/manager/external/ckfinder/userfiles/files/Transportation/Regional%20Transportation%20Plan/full_tplan2012.pdf">http://www.srpdd.org/manager/external/ckfinder/userfiles/files/Transportation/Regional%20Transportation%20Plan/full_tplan2012.pdf</a>	August-11		One of the recommendations is to retrofit existing fleets and vehicles to use biodiesel or other clean fuels and to purchase vehicles that use less fuel and cleaner fuel. The commuter buses are transitioning away from non-renewable fuels to cleaner, renewable alternatives.	vehicle conversion(s)/aftermarket conversion(s), biodiesel, fuel efficient vehicle(s), renewable fuel(s)
Southeastern Massachusetts MPO	MA	Transportation Improvement Program 2014-2017	<a href="http://www.srpdd.org/manager/external/ckfinder/userfiles/resources/Transportation/TIP/TIP2014-2017.pdf">http://www.srpdd.org/manager/external/ckfinder/userfiles/resources/Transportation/TIP/TIP2014-2017.pdf</a>	July-13		No mention of alternative fuel vehicles or infrastructure.	
Androscoggin Transportation Resource Center	ME	Connecting the Future, Transportation Plan for 2013-2035	Document is in PDF format	December-13		No mention of alternative fuel vehicles or infrastructure.	
Androscoggin Transportation Resource Center	ME	Androscoggin Transportation Resource Center 2014-2017 Transportation Improvement Program	Document is in PDF format	August-13		No mention of alternative fuel vehicles or infrastructure.	



Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Bangor Area Comprehensive Transportation System	ME	Bangor Area Comprehensive Transportation System Long Range Transportation Plan 2011-2035	<a href="http://www.bactsmmpo.org/document_upload/Final%20LRP%2020112.pdf">http://www.bactsmmpo.org/document_upload/Final%20LRP%2020112.pdf</a>	June-11		Alternative fuels are referred to as a way to reduce GHG emissions for the Bangor Area Comprehensive Transportation System area, but are also cited as a reason for reduced revenues for motor fuel tax.	alternative fuel(s)
Bangor Area Comprehensive Transportation System	ME	Bangor Area Comprehensive Transportation System Transportation Improvement Program Fiscal Year 2012-2015	<a href="http://www.bactsmmpo.org/document_upload/Final%20FY%202012-2013%20TIP4.pdf">http://www.bactsmmpo.org/document_upload/Final%20FY%202012-2013%20TIP4.pdf</a>	August-11		No mention of alternative fuel vehicles or infrastructure.	
Kittery Area Comprehensive Transportation Study	ME	Kittery Area Comprehensive Transportation Study Long Range Transportation Plan Update 2010-2035	<a href="http://www.smrpc.org/transportation/kacts/Approved%20Kacts%20LRP%202010-2035.pdf">http://www.smrpc.org/transportation/kacts/Approved%20Kacts%20LRP%202010-2035.pdf</a>	September-10		One of the objectives is to increase alternative fuel options. Details are not provided.	alternative fuel(s)
Kittery Area Comprehensive Transportation Study	ME	Transportation Improvement Program	<a href="http://www.smrpc.org/transportation/kacts/Final%20FY%202014-2017%20KACTS%20TIP.pdf">http://www.smrpc.org/transportation/kacts/Final%20FY%202014-2017%20KACTS%20TIP.pdf</a>	September-13		No mention of alternative fuel vehicles or infrastructure.	
Mid-Coast Regional Planning Commission	ME	Transportation and the Comprehensive Plan	<a href="http://www.midcoastplanning.org/PDFs/TransportationandtheComprehensivePlan.pdf">http://www.midcoastplanning.org/PDFs/TransportationandtheComprehensivePlan.pdf</a>			No mention of alternative fuel vehicles or infrastructure.	

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Portland Area Comprehensive Transportation Committee/Greater Portland Council of Governments	ME	Portland Area Comprehensive Transportation Committee Transportation Improvement Program for Fiscal Years 2014-2017	<a href="http://www.pactsplan.org/documents/PACTS_TIP_2014_2017_08_08_13.pdf">http://www.pactsplan.org/documents/PACTS_TIP_2014_2017_08_08_13.pdf</a>	August-13	Appear to be working on regional transportation plan but it is not yet finished	No mention of alternative fuel vehicles or infrastructure.	
Eastern Maine Development Corporation	ME	Tiger 2 Planning Grant Report	<a href="http://www.emdc.org/image/upload/TIGER_II_REPORT_2.pdf">http://www.emdc.org/image/upload/TIGER_II_REPORT_2.pdf</a>	February-13		Fuel-efficient vehicles are mentioned throughout the document as they were included in a survey done. These vehicles are an option mentioned for cost savings.	alternative fuel(s), fuel efficient vehicle(s)
Greater Portland Council of Governments/Southern Maine Planning and Development Commission	ME	Sustain Southern Maine: Long-Range Transportation Plan	<a href="http://sustainsouthernmaine.org/">http://sustainsouthernmaine.org/</a>	October-13	*** This plan was accessed in February 2014, but is no longer available on the Sustain Southern Maine website, which now says that the transportation plan is coming soon	One of the recommendations under Strategy 11 is to continue to support the work of the Maine Clean Communities Program to help develop alternative fuel infrastructure and promote the use of AFVs. Other recommendations under Strategy 11 are: <ul style="list-style-type: none"> <li>- Convert waste hauler fleets to CNG and/or blended biodiesel.</li> <li>- Reduce unnecessary fuel consumption through vehicle efficiency practices such as idle reduction, trip chaining, and eco-driving techniques.</li> <li>- Establish a network of EVSE.</li> <li>- Expand the reach of regional greenhouse gas policies and continue to support state and national legislation to increase fuel efficiency for all vehicles.</li> </ul>	alternative fuel vehicle(s), refueling infrastructure/fueling infrastructure, compressed natural gas, biodiesel, vehicle conversion(s)/aftermarket conversion(s), idle reduction, EVSE, fuel efficient vehicle(s)

Author Organization	State	Plan Title	Web Link	Date of Publication	Next Update	Alternative Fuel Vehicle and Infrastructure Relevance	Keywords
Addison County Regional Planning Commission	VT	Addison County Regional Plan	<a href="http://files.acrpc.org/flipbook/files/assets/downloads/publication.pdf">http://files.acrpc.org/flipbook/files/assets/downloads/publication.pdf</a>	December-11		One of the goals is to encourage the development of alternative fuels, technologies, and infrastructure to reduce dependence on fossil fuels. Another goal is to support the development of farm-based sources such as biogas and biodiesel.	alternative fuel(s), biogas, biodiesel
Bennington County Regional Commission	VT	Bennington County Regional Transportation Plan Update	<a href="http://www.rpc.bennington.vt.us/documents/transplan.pdf">http://www.rpc.bennington.vt.us/documents/transplan.pdf</a>	October-08	Updated plan will be released in September 2014	There is a chapter on Alternative Fuel, which states that AFVs and supporting infrastructure are of importance. All alternative fuels are mentioned throughout the document. The organization plans to develop a state-wide strategy for alternative fuel fueling stations and introduce alternative fuels into transit fleets.	alternative fuel(s), refueling infrastructure/fueling infrastructure
Central Vermont Regional Planning Commission	VT	Central Vermont Region 2008 Regional Transportation Plan	<a href="http://centralvtplanning.org/wp-content/uploads/2012/03/CV_RPC%20Regional%20Transportation%20Plan.pdf">http://centralvtplanning.org/wp-content/uploads/2012/03/CV_RPC%20Regional%20Transportation%20Plan.pdf</a>	September-08	Updating plan in sections	One of the goals is to reduce consumption of energy resources in transportation by using alternative fuels.	alternative fuel(s)
Chittenden County MPO	VT	Chittenden County RPC Transportation Improvement Program for Fiscal Years 2014-2017	<a href="http://www.ccrpcvt.org/TIP_docs/FY14-17TIPAsAdopted.pdf">http://www.ccrpcvt.org/TIP_docs/FY14-17TIPAsAdopted.pdf</a>	July-13		No mention of alternative fuel vehicles or infrastructure.	
Chittenden County MPO	VT	2013 Chittenden County ECOS Plan	<a href="http://ecosproject.com/sites/default/files/ECOS_Plan_FINALmerged_20130619.pdf">http://ecosproject.com/sites/default/files/ECOS_Plan_FINALmerged_20130619.pdf</a>	June-13		The more widespread adoption of EVs is mentioned as a way to reduce consumption of energy. Expanded adoption of natural gas vehicles (NGVs) is also mentioned for heavy duty fleets, as well as a regional network of EVSE. Finally, fuel efficiency is cited as a reason for declining revenues.	electric vehicle(s), electric vehicle supply equipment/charging stations, fuel efficient vehicle(s), natural gas vehicle(s)

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Lamoille County Planning Commission	VT	2006 Lamoille County Regional Transportation Plan	<a href="http://www.lcpcvt.org/vertical/sites/%7B3C01460C-7F49-40F5-B243-0CA7924F23AF%7D/uploads/%7BC0FF256B-7388-4376-A101-A95BD0AEF0E2%7D.PDF">http://www.lcpcvt.org/vertical/sites/%7B3C01460C-7F49-40F5-B243-0CA7924F23AF%7D/uploads/%7BC0FF256B-7388-4376-A101-A95BD0AEF0E2%7D.PDF</a>	September-06	In the process of updating the plan: <a href="http://www.lcpcvt.org/index.asp?Type=B_BASIC&amp;SEC={A302111A-1BF1-4B73-AE5B-39F89227E894}">http://www.lcpcvt.org/index.asp?Type=B_BASIC&amp;SEC={A302111A-1BF1-4B73-AE5B-39F89227E894}</a>	No mention of alternative fuel vehicles or infrastructure.	
Northeastern Vermont Development Association	VT	Northeast Kingdom Regional Plan	<a href="http://www.nvda.net/files/Vol%20III%20Regional%20Transportation%20Plan%20NVDA_032813_Final%20Draft.pdf">http://www.nvda.net/files/Vol%20III%20Regional%20Transportation%20Plan%20NVDA_032813_Final%20Draft.pdf</a>	March-13		Goal D includes promoting the development of charging stations to facilitate increased use of EVs.	electric vehicle(s), electric vehicle supply equipment/charging stations
Northwest Regional Planning Commission	VT	Northwest Regional Transportation Plan 2010-2015	<a href="http://www.nrpcvt.com/Publications/Reports/TransportationPlansReports/2010DraftTransportationPlan.pdf">http://www.nrpcvt.com/Publications/Reports/TransportationPlansReports/2010DraftTransportationPlan.pdf</a>	2010	No final version available; the transportation plan will be integrated into the regional plan.	Goal 3 includes encouraging the use of alternative fuels.	alternative fuel(s)
Rutland Regional Planning Commission	VT	Regional Transportation Plan	<a href="http://www.rutlandrpc.org/download.php?mode=tpub&amp;id=2&amp;name=Chap21_28_Transportation.pdf">http://www.rutlandrpc.org/download.php?mode=tpub&amp;id=2&amp;name=Chap21_28_Transportation.pdf</a>	April-08	Updated plan will be released in June 2014	No mention of alternative fuel vehicles or infrastructure.	
Southern Windsor County Regional Planning Commission	VT	Regional Transportation Plan	<a href="http://swcrpc.org/publication/s/">http://swcrpc.org/publication/s/</a>	2009	Next update coming July 2014	Liquefied petroleum gas (LPG) is mentioned as an option for freights under Alternative Modes of Transportation.	propane/liquefied petroleum gas/autogas
Two Rivers-Ottawaquechee Regional Commission	VT	Two Rivers - Ottawaquechee Regional Plan	<a href="http://www.trorc.org/wp/wp-content/uploads/2013/08/RegPlanTRORC06272012.pdf">http://www.trorc.org/wp/wp-content/uploads/2013/08/RegPlanTRORC06272012.pdf</a>	July-12		One of the policies mentioned is to promote the use of biodiesel and other alternative fuels.	biodiesel, alternative fuel vehicle(s), fuel economy
Windham Regional Commission	VT	Windham Regional Transportation Plan	<a href="http://windhamregional.org/images/docs/transplan/01_transplan_policies.pdf">http://windhamregional.org/images/docs/transplan/01_transplan_policies.pdf</a>	June-13		One of the policies is to promote AFVs and the associated infrastructure.	alternative fuel vehicle(s), fuel efficient vehicle(s)